WINTER BULLETIN 2020/2021

FRIENDSof Laurier Woods

LAURIER WOODS IS OPEN DURING COVID-19 LOCKDOWN. WEAR A MASK, OBSERVE SOCIAL DISTANCING AND ENJOY NATURE AT ITS MOST BEAUTIFUL.

Don't miss our Annual General Meeting. On March 17/21 our President will host all paid members on ZOOM. Guest speaker, Chris Mayne, will share his vast knowledge on snowshoe trails and much more.
Details on www.laurierwoods.com

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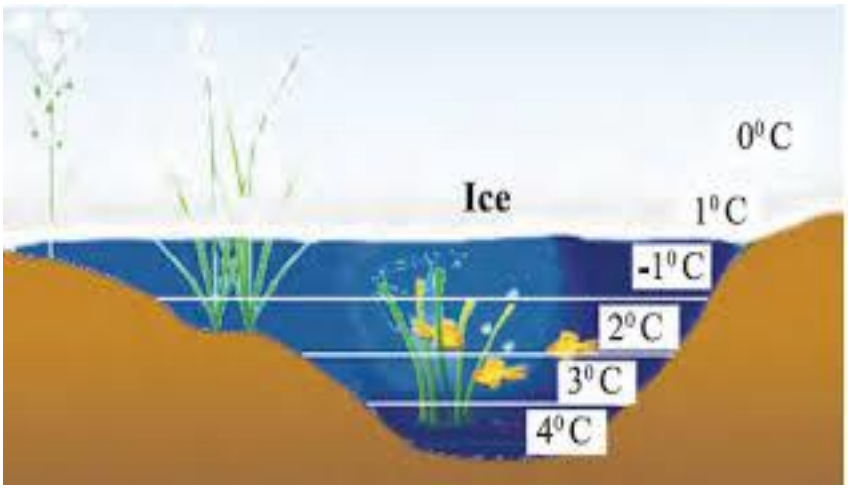
Want to get Involved?
Here's how to contact us:
www.laurierwoods.com

The trails are in terrific shape and well packed. Please observe caution on days where they may be icy. We don't want anyone to be hurt.

LIFE UNDER THE ICE



As you pass by the pond and wetlands in winter you may be struck by the barrenness. The familiar image that has changed dramatically by the cold temperatures, ice and snow. If you are lucky you may see the tracks of a deer or fox having shortened their travels crossing the frozen surface, but the activity on top of the ice pales in comparison to what is going on underneath.

To understand what happens to these diverse ecosystems you need to first consider what occurs in the autumn as the air and water temperature begin to cool. When the temperature of the surface water cools to 4°C, the temperature at which water is most dense, it settles to the bottom pushing the warmer, less dense water to the surface. This process continues, mixing the water thoroughly and at the same time making it oxygen and nutrient rich. Eventually the surface water cools below 4°C and freezes. The ice forms a barrier blocking the movement of oxygen from the atmosphere into the water. Aquatic plants and algae continue to grow under thin layers of transparent ice but, as the ice thickens and snow Accumulates, sunlight is blocked and many die to their roots or become inactive spores in wait for spring. Species of phytoplankton, minute suspended plants including algae, remain active throughout the winter. Other pond life adapts by functioning at a slower pace requiring less food and oxygen. Gill-equipped immature stages of insects that you would see in summer, mayflies, caddisflies, dragonflies, and damselflies, can still be found in the mud at the Bottom. Minnows remain sluggishly active, as do red-spotted newts, tadpoles, and crayfish. Some free-swimming carnivorous insects, including whirligig beetles, predaceous diving beetles, and back-swimmers use tiny bubbles and silvery films of air filled with diffused oxygen from the surrounding water. Minnows remain sluggishly active, as do red-spotted newts, tadpoles, and crayfish. Cold-blooded animals dramatically decrease their heartbeat, circulation, and metabolism. Sunfish enter a state of aquatic suspended animation while still remaining buoyant. Frogs, salamanders and turtles dig into the mud. Garter snakes sometimes hibernate in crayfish burrows at the pond's edge. Snakes occasionally share the same shelter with frogs and salamanders, animals which, in autumn, were the snake's prey. Snapping and painted turtles hibernate near the edge of the pond.

Some pond dwelling animals do emerge from their homes during milder winter days. Muskrats often leave their dome-shaped winter lodges made of mud-packed cattails and can be seen diving form the ice where the water is open. The oxygen-carrying capacity increases in their blood in winter, enabling longer dives under the ice where they forage on submerged stems and roots. Beavers snuggle in their lodges, above the cold pond water, to preserve body heat. When hungry, they may leave the lodge by an underwater entryway and swim a short distance to where their cache of branches awaits them, having been cut and pushed into the mud during the fall. These robust aquatic rodents also rely on autumn stores of body fat to survive. The mud-dwelling decomposers use up the most oxygen which becomes depleted first near the bottom. If the shortage of oxygen becomes too severe the less tolerant organisms may die.

Winter under the ice can be harsh and for the plants and animals the spring thaw is a welcome sign!

Photo of the single deer courtesy of Kay Edmonds. Wood/deer courtesy of Terri Haist.
Share your photos on Laurier Woods Facebook page and enjoy the contributions of others.